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L1 QUE (THREONINE (W) ALDOLASE)

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=> S L1

L2 942 L1

=> S (gene or sequence or polynucleotide or clone or recombinant) (s) L2  
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 (S) L2

=> S express? (s) L3

2 FILES SEARCHED...

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=> dup rem L5  
DUPLICATE IS NOT AVAILABLE IN 'DGENE'.  
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE  
PROCESSING COMPLETED FOR L5  
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=> d ibib abs L7 1-46

L7 ANSWER 1 OF 46 USPATFULL on STN  
ACCESSION NUMBER: 2006:138817 USPATFULL <<LOGINID::20070213>>  
TITLE: Method for producing aminoacids  
INVENTOR(S): Schmitz, Oliver, Dallgow-Doberitz, GERMANY, FEDERAL  
REPUBLIC OF  
Puzio, Piotr, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Blau, Astrid, Stahnsdorf, GERMANY, FEDERAL REPUBLIC OF  
Looser, Ralf, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Wendel, Birgit, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Kamlage, Beate, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Plesch, Gunnar, Potsdam, GERMANY, FEDERAL REPUBLIC OF

NUMBER KIND DATE

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PATENT INFORMATION: US 2006117401 A1 20060601  
APPLICATION INFO.: US 2003-539954 A1 20031219 (10)  
WO 2003-EP14649 20031219  
20050617 PCT 371 date

NUMBER DATE

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PRIORITY INFORMATION: DE 2002-10261188 20021220  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: CONNOLLY BOVE LODGE & HUTZ, LLP, P O BOX 2207,  
WILMINGTON, DE, 19899, US  
NUMBER OF CLAIMS: 25  
EXEMPLARY CLAIM: 1  
LINE COUNT: 4609  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a method for producing aminoacids in transgenic organisms. The inventive method consists of the following steps: a) introduction of nucleic acids sequence which codes threonine decomposing protein or lysine decomposing protein or codes threonine decomposing protein and lysine decomposing protein, b) introduction of nucleic acids sequence which improves the decomposition of threonine or lysine or the decomposition of threonine and lysine in the transgenic organisms; c) expression of (a) or (b) nucleic acids sequence in a transgenic organism. In a very useful manner, the nucleic acids sequence is introduced in the step a) of the method, said sequence being selected from: i) the nucleic acids sequence with the sequence present in SEQ ID NO: 1, SEQ ID NO: 11, SEQ ID NO: 13, SEQ ID NO: 15, SEQ ID NO: 17, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 23 and/or SEQ ID NO:25; ii) the nucleic acids sequence which is preserved as a result of a degenerate genetic code by re-recording aminoacids sequence present in SEQ ID NO: 2, SEQ ID NO: 12, SEQ ID NO: 14, SEQ ID NO: 16, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, SEQ ID NO:24 and/or 26; and iii) a derivative of the nucleic acid sequence present in SEQ ID NO: 1, SEQ ID NO:11, SEQ ID NO: 13, SEQ ID NO: 15, SEQ ID NO: 17, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 23 and/or SEQ ID NO:25 which codes polypeptides with the nucleic acids sequence present in SEQ ID NO: 2, SEQ ID NO: 12, SEQ ID NO: 14, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO:20, SEQ ID NO:22, SEQ ID NO:24 and/or 26 and which comprises at least 50% of homology in terms of aminoacids without reducing the biological activity of polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 2 OF 46 USPATFULL on STN  
ACCESSION NUMBER: 2004:307160 USPATFULL <<LOGINID::20070213>>

TITLE: tdcBC/pckA gene-inactivated microorganism and method of  
producing L-threonine using the same  
INVENTOR(S): Park, Young Hoon, Gyeonggi-do, KOREA, REPUBLIC OF  
Lee, Byoung Choon, Seoul, KOREA, REPUBLIC OF  
Kim, Dae Cheol, Gyeonggi-do, KOREA, REPUBLIC OF  
Lee, Jin Ho, Gyeonggi-do, KOREA, REPUBLIC OF  
Cho, Jae Yong, Gyeonggi-do, KOREA, REPUBLIC OF

NUMBER KIND DATE

PATENT INFORMATION: US 2004241831 A1 20041202  
APPLICATION INFO.: US 2004-817044 A1 20040402 (10)

NUMBER DATE

PRIORITY INFORMATION: KR 2003-21458 20030404  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: BAKER & BOTTS, 30 ROCKEFELLER PLAZA, NEW YORK, NY,  
10112  
NUMBER OF CLAIMS: 24  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 3 Drawing Page(s)  
LINE COUNT: 651  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provide a microorganism comprising an inactivated  
chromosomal tdcBC gene and an inactivated chromosomal pckA gene, which  
has remarkably improved productivity of L-threonine. Also, the present  
invention provides a method of producing L-threonine using the  
microorganism. The microorganism is prepared by incorporating by a  
recombination technique an antibiotic resistance gene into a pckA gene  
on the chromosome of a bacterial strain containing an L-threonine  
degradation-associated operon gene, tdcBC, which is inactivated. The  
microorganism has the effect of preventing degradation and intracellular  
influx of L-threonine due to the inactivation of the tdcBC operon gene,  
and includes more activated pathways for L-threonine biosynthesis.  
Therefore, the microorganism is useful for mass production of  
L-threonine because of being capable of producing L-threonine in high  
levels and high yields even in the presence of high concentrations of  
glucose.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 3 OF 46 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2001:634531 CAPLUS <<LOGINID::20070213>>  
DOCUMENT NUMBER: 136:258038

TITLE: Analysis of the chromosome sequence of the legume  
symbiont Sinorhizobium meliloti strain 1021

AUTHOR(S): Capela, Delphine; Barloy-Hubler, Frederique; Gouzy,  
Jerome; Bothe, Gordana; Ampe, Frederic; Batut,  
Jacques; Boistard, Pierre; Becker, Anke; Boutry, Marc;  
Cadieu, Edouard; Dreano, Stephane; Gloux, Stephanie;  
Godrie, Therese; Goffeau, Andre; Kahn, Daniel; Kiss,  
Erno; Lelaure, Valerie; Masuy, David; Pohl, Thomas;  
Portetelle, Daniel; Puhler, Alfred; Purnelle,  
Benedicte; Ramsperger, Ulf; Renard, Clotilde;  
Thebault, Patricia; Vandenbol, Micheline; Weidner,  
Stefan; Galibert, Francis

CORPORATE SOURCE: Laboratoire de Biologie Moleculaire des Relations  
Plantes-Microorganismes, Unite Mixte de Recherche  
(UMR) 215 Centre National de la Recherche Scientifique  
(CNRS), Institut National de la Recherche Agronomique,  
Chemin, Tolosan, F-31326, Fr.

SOURCE: Proceedings of the National Academy of Sciences of the  
United States of America (2001), 98(17), 9877-9882  
CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Sinorhizobium meliloti is an .alpha.-proteobacterium that forms

agronomically important N<sub>2</sub>-fixing root nodules in legumes. We report here the complete sequence of the largest constituent of its genome, a 62.7% GC-rich 3654,135-bp circular chromosome. Annotation allowed assignment of a function to 59% of the 3341 predicted protein-coding ORFs, the rest exhibiting partial, weak, or no similarity with any known sequence. Unexpectedly, the level of reiteration within this replicon is low, with only two genes duplicated with more than 90% nucleotide sequence identity, transposon elements accounting for 2.2% of the sequence, and a few hundred short repeated palindromic motifs (RIME1, RIME2, and C) widespread over the chromosome. Three regions with a significantly lower GC content are most likely of external origin. Detailed annotation revealed that this replicon contains all housekeeping genes except two essential genes that are located on pSymB. Amino acid/peptide transport and degradn. and sugar metab. appear as two major features of the *S. meliloti* chromosome. The presence in this replicon of a large no. of nucleotide cyclases with a peculiar structure, as well as of genes homologous to virulence determinants of animal and plant pathogens, opens perspectives in the study of this bacterium both as a free-living soil microorganism and as a plant symbiont.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75852 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

CROSS REFERENCES: N-PSDB: ADQ75851

DESCRIPTION: Soybean threonine aldolase.

AN ADQ75852 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is the soybean \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 5 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75847 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Canola threonine aldolase fragment SEQ ID NO: 9.

AN ADQ75847 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic

acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of the canola \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 6 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75843 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Soybean threonine aldolase fragment SEQ ID NO: 5.

AN ADQ75843 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of the soybean \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 7 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75877 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #13.

AN ADQ75877 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 8 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75866 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic

organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#2.

AN ADQ75866 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 9 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75873 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#9.

AN ADQ75873 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 10 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75845 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Rice threonine aldolase fragment SEQ ID NO: 7.

AN ADQ75845 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of the rice \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 11 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75844 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Rice threonine aldolase fragment SEQ ID NO: 6.

AN ADQ75844 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of the rice \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 12 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75840 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

CROSS REFERENCES: N-PSDB: ADQ75839

DESCRIPTION: S cerevisiae threonine aldolase.

AN ADQ75840 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is the S. cerevisiae \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 13 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN



ACCESSION NUMBER: ADQ75886 protein DGENE  
TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.  
INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G  
PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA  
PATENT INFO: WO 2004057003 A2 20040708 110  
APPLICATION INFO: WO 2003-EP14649 20031219  
PRIORITY INFO: DE 2002-1061188 20021220  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: 2004-517685 [49]  
DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#22.

AN ADQ75886 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 14 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75883 protein DGENE  
TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.  
INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G  
PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA  
PATENT INFO: WO 2004057003 A2 20040708 110  
APPLICATION INFO: WO 2003-EP14649 20031219  
PRIORITY INFO: DE 2002-1061188 20021220  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: 2004-517685 [49]  
DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#19.

AN ADQ75883 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 15 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75869 protein DGENE  
TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.  
INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G  
PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA  
PATENT INFO: WO 2004057003 A2 20040708 110  
APPLICATION INFO: WO 2003-EP14649 20031219  
PRIORITY INFO: DE 2002-1061188 20021220  
DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #5.

AN ADQ75869 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 16 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75854 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

CROSS REFERENCES: N-PSDB: ADQ75853

DESCRIPTION: Canola threonine aldolase.

AN ADQ75854 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is the canola \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 17 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75876 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #12.

AN ADQ75876 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has

antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 18 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75875 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#11.

AN ADQ75875 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 19 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75874 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#10.

AN ADQ75874 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 20 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75887 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#23.

AN ADQ75887 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 21 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75882 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#18.

AN ADQ75882 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 22 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75881 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#17.

AN ADQ75881 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic

acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 23 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75870 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #6.

AN ADQ75870 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 24 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75868 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #4.

AN ADQ75868 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 25 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75865 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,

cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #1.

AN ADQ75865 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 26 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75880 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #16.

AN ADQ75880 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 27 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75846 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Canola threonine aldolase fragment SEQ ID NO: 8.

AN ADQ75846 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of the canola \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 28 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75891 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase consensus protein.

AN ADQ75891 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* consensus protein.

L7 ANSWER 29 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75878 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #14.

AN ADQ75878 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 30 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75872 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#8.

AN ADQ75872 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 31 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75848 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Canola threonine aldolase fragment SEQ ID NO: 10.

AN ADQ75848 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of the canola \*\*\*threonine\*\*\*  
\*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 32 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75842 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent



LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Soybean threonine aldolase fragment SEQ ID NO: 4.

AN ADQ75842 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of the soybean \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 33 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75841 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Soybean threonine aldolase fragment SEQ ID NO: 3.

AN ADQ75841 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of the soybean \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme.

L7 ANSWER 34 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75890 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #26.

AN ADQ75890 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*

enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 35 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75879 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#15.

AN ADQ75879 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 36 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75867 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#3.

AN ADQ75867 protein DGENE

AB The present invention relates to a method for preparing amino acids in  
transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic  
acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr)  
and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys  
in the organism. The amino acids, preferably methionine, homoserine and  
lysine, or the organisms that produce them, are used in preparation of  
foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has  
antidepressant activity), also as synthetic intermediates. The present  
\*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\*  
enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 37 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75889 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods,  
cosmetics and pharmaceuticals, by growing transgenic  
organisms that express a protein that degrades threonine  
and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219  
PRIORITY INFO: DE 2002-1061188 20021220  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
OTHER SOURCE: 2004-517685 [49]  
DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#25.

AN ADQ75889 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 38 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75885 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#21.

AN ADQ75885 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 39 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75884 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein  
#20.

AN ADQ75884 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys

in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 40 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75871 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #7.

AN ADQ75871 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 41 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75888 protein DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: Threonine aldolase fragment used to create consensus protein #24.

AN ADQ75888 protein DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a fragment of a \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* enzyme used to create a consensus \*\*\*sequence\*\*\* for the protein.

L7 ANSWER 42 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75853 DNA DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine

and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

CROSS REFERENCES: P-PSDB: ADQ75854

DESCRIPTION: Canola threonine aldolase coding sequence.

AN ADQ75853 DNA DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is the canola \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* coding \*\*\*sequence\*\*\*.

L7 ANSWER 43 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75927 DNA DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: S cerevisiae threonine aldolase coding sequence PCR primer #2.

AN ADQ75927 DNA DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a PCR primer used to isolate the S. cerevisiae \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* coding \*\*\*sequence\*\*\*.

L7 ANSWER 44 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN

ACCESSION NUMBER: ADQ75839 DNA DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B;  
Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA.

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

CROSS REFERENCES: P-PSDB: ADQ75840

DESCRIPTION: S cerevisiae threonine aldolase coding sequence.

AN ADQ75839 DNA DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is the *S. cerevisiae* \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* coding \*\*\*sequence\*\*\*.

L7 ANSWER 45 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75851 DNA DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

CROSS REFERENCES: P-PSDB: ADQ75852

DESCRIPTION: Soybean threonine aldolase coding sequence.

AN ADQ75851 DNA DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is the soybean \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* coding \*\*\*sequence\*\*\*.

L7 ANSWER 46 OF 46 DGENE COPYRIGHT 2007 The Thomson Corp on STN  
ACCESSION NUMBER: ADQ75926 DNA DGENE

TITLE: Method for preparing amino acids, useful e.g. in foods, cosmetics and pharmaceuticals, by growing transgenic organisms that express a protein that degrades threonine and/or lysine.

INVENTOR: Schmitz O; Puzio P; Blau A; Looser R; Wendel B; Kamlage B; Plesch G

PATENT ASSIGNEE: (META-N)METANOMICS GMBH & CO KGAA

PATENT INFO: WO 2004057003 A2 20040708 110

APPLICATION INFO: WO 2003-EP14649 20031219

PRIORITY INFO: DE 2002-1061188 20021220

DOCUMENT TYPE: Patent

LANGUAGE: German

OTHER SOURCE: 2004-517685 [49]

DESCRIPTION: *S. cerevisiae* threonine aldolase coding sequence PCR primer #1.

AN ADQ75926 DNA DGENE

AB The present invention relates to a method for preparing amino acids in transgenic organisms by introducing and \*\*\*expressing\*\*\* a nucleic acid that encodes a protein able to \*\*\*degrade\*\*\* Threonine (Thr) and/or Lysine (Lys), or increases \*\*\*degradation\*\*\* of Thr and/or Lys in the organism. The amino acids, preferably methionine, homoserine and lysine, or the organisms that produce them, are used in preparation of foods, animal feeds, cosmetic or pharmaceuticals (e.g. Met has antidepressant activity), also as synthetic intermediates. The present \*\*\*sequence\*\*\* is a PCR primer used to isolate the *S. cerevisiae* \*\*\*threonine\*\*\* \*\*\*aldolase\*\*\* coding \*\*\*sequence\*\*\*.

=> d his

L1 QUE (THREONINE (W) ALDOLASE)

FILE 'CAPLUS, DGENE, BIOSIS, SCISEARCH, MEDLINE, EMBASE, USPATFULL,  
TOXCENTER, PASCAL, LIFESCI, WPIDS' ENTERED AT 17:34:56 ON 13 FEB 2007

L2 942 S L1

L3 283 S (GENE OR SEQUENCE OR POLYNUCLEOTIDE OR CLONE OR RECOMBINANT)

L4 159 S EXPRESS? (S) L3

L5 46 S (DEGRAD? OR DECOMPOS?) (S) L4

L6 1 S (L-AMINO (W) ACID) (S) L5

L7 46 DUP REM L5 (0 DUPLICATES REMOVED)

=> log y